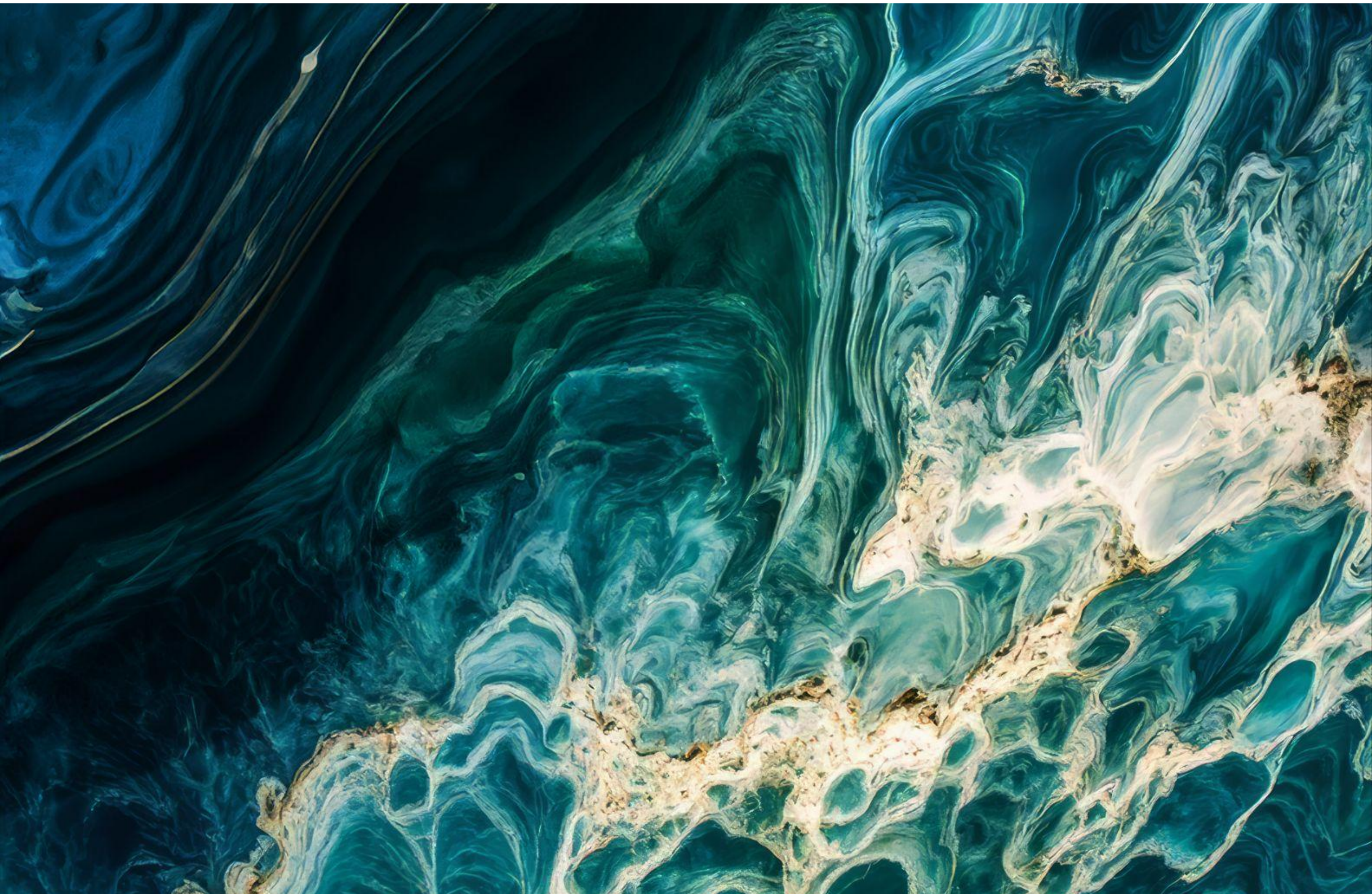
Quantum Coast Capital

2026 THE YEAR OF QUANTUM SECURITY

Quantum Horizons

Unlocking Investment Opportunities for family offices

Q1 2026



Executive Summary

Quantum technology is transitioning from theoretical promise toward strategic relevance. In 2026, with quantum security rising on the agenda and advances continuing across computing, sensing, and communications, progress in hardware, error correction, and hybrid architectures is pushing the field closer to real-world deployment. What was once confined to research environments is beginning to emerge as a new layer of infrastructure with meaningful implications for cybersecurity, data integrity, and the global competitive landscape.

It is important to be clear about what this shift represents. Quantum technologies are not a replacement for classical computing or artificial intelligence. They are an extension of them. Classical systems will remain foundational, but they face real limitations when addressing certain complex, high-dimensional problems. Quantum approaches introduce new capabilities that, over time, will be integrated into hybrid systems designed to solve challenges that are currently difficult or inefficient to address using classical methods alone.

For investors, this is a developing but uneven landscape. Capital deployment from sovereign programs and major technology corporations continues to accelerate, with early commercial traction emerging in select verticals. At the same time, timelines are uncertain and technical hurdles remain. Not all participants will succeed. As with prior technology cycles, rigorous due diligence and a clear understanding of technical and commercial fundamentals will distinguish durable platforms from speculative ventures. The stakes are high, not just economically, but in terms of national security and long-term technological leadership.

Quantum Coast Capital (QCC) was established to engage directly with this evolving landscape. In addition to pursuing investment opportunities, we work across academia, industry, and policy to identify where durable progress is being made. We are also actively involved in shaping emerging quantum hubs across select U.S. regions, helping connect research, talent, and capital in ways that move technologies closer to market. This creates a stronger foundation for the next phase of the industry, where commercialization, integration, and execution will determine outcomes. The views expressed in this paper are informed by our direct engagement with the quantum ecosystem, including our portfolio companies, and should be read in that context.

This paper provides a practical overview of the current state of quantum technology and outlines how we think about its risks, opportunities, and long-term impact.

Matt Cimaglia
Founder & Managing Partner

Table of Contents

Quantum Terms

Classical Computing:
Traditional computing is based on classical bits, which can be either 0 or 1. Classical computers use binary logic to perform calculations and process data, relying on well-established principles of classical physics.

Entanglement:
A quantum phenomenon where two or more particles become interconnected, and the state of one particle instantaneously influences the state of the other, regardless of distance. This property is used in quantum computing to link qubits in ways that classical bits cannot be linked.

Fault-Tolerant Quantum Computer:
A quantum computer that reliably performs computations despite errors, using quantum error correction to maintain accuracy.

Hybrid Quantum-Classical Computing:
An approach that combines quantum and classical computing techniques to solve problems more efficiently. Quantum computers perform specific parts of the computation, while classical computers handle the rest.

Logical Qubit:
A reliable unit of quantum information in a quantum computer, created by combining multiple physical qubits to correct errors. This makes quantum computations more accurate, ensuring dependable results even when individual physical qubits might be prone to mistakes.

Quantum Advantage:
When a quantum computer can solve a problem faster or more efficiently than a classical computer, even if the classical computer could still solve the problem within a reasonable timeframe. This demonstrates the practical benefits of quantum computing over classical computing for specific tasks, even if they haven't yet reached the level of quantum supremacy.

Quantum Algorithm:
A set of instructions for a quantum computer to perform a specific task. Famous examples include Shor's algorithm for factoring large numbers and Grover's algorithm for database searching.

Quantum Annealing:
A quantum computing method used to solve optimization problems by finding the lowest energy state of a system. Companies like D-Wave Systems specialize in quantum annealers.

Quantum Cryptography:
A field that uses principles of quantum mechanics to develop secure communication methods. Quantum key distribution (QKD) is a well-known application that ensures secure transmission of encryption keys.

Quantum Terms Cont.

Quantum Error Correction:
Techniques used to protect quantum information from errors due to decoherence and other quantum noise. Error correction is essential for building practical and reliable quantum computers.

Quantum Gate:
A basic quantum circuit operating on a small number of qubits. Quantum gates are the building blocks of quantum algorithms, similar to classical logic gates in traditional computing.

Quantum Supremacy:
The point at which a quantum computer can perform a calculation that is infeasible for any classical computer to execute within a reasonable timeframe. Google claimed to have achieved quantum supremacy in 2019 with its Sycamore processor.

Quantum Utility:
The stage where quantum computers provide significant practical benefits in solving real-world problems, making them valuable tools in industry and research. Quantum utility is achieved when quantum computers are not only faster but also cost-effective and reliable for everyday applications.

Qubit:
A quantum bit, or qubit, is the basic unit of quantum information. Unlike a classical bit, which can be either 0 or 1, a qubit can exist in a superposition of both states simultaneously, enabling more complex computations.

Scalable Quantum Computer:
A quantum system that can grow in size by adding more qubits without losing performance or accuracy.

Shor's Algorithm:
A method that uses quantum computers to find the prime factors of large numbers—a task that's extremely difficult for classical computers. Encryption systems like RSA rely on the difficulty of factoring large numbers to keep information secure. If a quantum computer runs Shor's algorithm, it could break RSA encryption by efficiently solving the factoring problem.

Superposition:
A fundamental principle of quantum mechanics where a quantum system can exist in multiple states simultaneously. In quantum computing, this means a qubit can represent an infinite number of probabilities between 0 and 1, allowing it to perform many calculations at once, vastly increasing the computational power of qubits for certain tasks compared to classical bits.

I. Introduction to quantum computing

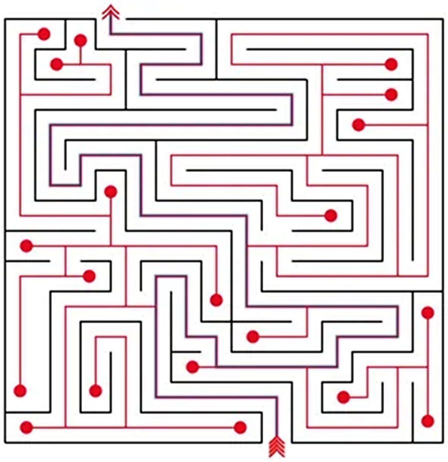
Quantum computing is a groundbreaking method of processing information that harnesses the principles of quantum mechanics—the science that governs the behavior of very small particles like atoms.

Unlike traditional computers, which use bits that are either 0 or 1, quantum computers use qubits, which can represent both 0 and 1 simultaneously, a property known as superposition. Additionally, qubits can be connected through entanglement, allowing changes in one qubit to instantly affect another, regardless of distance.

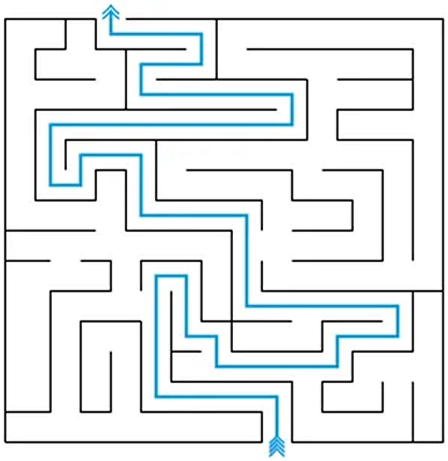
These capabilities make quantum computers incredibly efficient at solving complex problems, like molecule modeling for drug discovery, optimizing financial portfolios, and breaking encryption—tasks that would take classical computers an impractically long time.

While classical computers must test scenarios sequentially, quantum computers can evaluate all possibilities at once, allowing faster solutions. For instance, factoring a large number (essential for cryptography) could take a classical computer millions of years, whereas a quantum computer, leveraging Shor's algorithm, could, in a fault-tolerant regime, reduce computation time from impractical durations to materially shorter timeframes.

Illustration: simplified analogy of the power of a classical computer vs. a quantum computer.



Classical computer



Quantum computer

Image Source: https://dif.fi/teema-artikkelit/kvanttiteknologia-tekee-mahdottomasta-mahdollista/

II. The Current Quantum Landscape

The current landscape is marked by significant hardware and software advancements, a robust ecosystem of both startups and tech leaders, alongside increasing government support for research and development.

A. Recent Advancements in quantum computing hardware

Despite its considerable potential, quantum computing has historically faced significant technical hurdles that have constrained broader adoption. Quantum computers require special hardware including quantum processor (QPUs) chips to process information. One of the main challenges with quantum processor chips is the instability of **qubits**, the fundamental units that store and process information.

Current quantum computers are more prone to errors than classical computers because **qubits** (the basic units of quantum information) are incredibly sensitive to their environment. Factors such as temperature fluctuations, electromagnetic interference, or even slight vibrations, can easily disrupt the delicate quantum states of qubits. This instability (known as **quantum decoherence**) leads to frequent errors in calculations and difficulties in maintaining accurate results over long periods of time.

To minimize quantum decoherence, quantum systems require highly controlled environments—often including temperatures near absolute zero and sophisticated electromagnetic shielding—which makes constructing large-scale, reliable quantum machines technically demanding.

In order to achieve the full potential of quantum computing, these systems need to be scaled. **Scaling quantum computers** to handle larger and more complex tasks is a significant hurdle, because adding more qubits increases the potential for errors. As the number of qubits grows, so does the need to maintain their delicate quantum states, which becomes harder at scale. The complex infrastructure and technical challenges have historically limited their practical use.

As a result, quantum computing has been largely confined to research laboratories—until recently. In recent years, significant advancements in quantum error correction and hardware engineering have materially advanced these systems. Quantum computers are now much closer to solving practical, real-world applications.

The ultimate goal is to achieve a **fault-tolerant quantum computer**, which is a quantum computer that can perform complex calculations accurately over long periods of time by mitigating the inherent instability of qubits. These machines use quantum error correction techniques to detect and fix errors as they occur, allowing them to process complex computations reliably without being derailed by noise or decoherence.

Once fault-tolerance is achieved, the full potential of quantum computing will be unlocked and enabled to solve problems currently beyond the reach of even the most powerful classical supercomputers. The race to achieve fault-tolerant quantum computing has profound implications, particularly for modern cryptography, as this technology could potentially break many current encryption methods. The timeline for reaching this milestone hinges on two critical factors: the total number of available qubits and the ratio of error-correcting qubits needed per logical qubit. IBM and Google both target fault-tolerant operation by 2029. IBM's updated roadmap (November 2025) introduces the Starling fault-tolerant system for 2029, with interim milestones including Kookaburra (2026) and Cockatoo (2027). The broader industry consensus has converged on the end of the decade as the most plausible window.[1] The market reflects this urgency, evidenced by accelerating investment in post-quantum encryption startups preparing for this shift.

The quantum computing industry recorded several landmark milestones in 2025, and early 2026 has already added to that momentum. Google and SoftBank's $230 million investment into QuEra, NVIDIA's Accelerated Quantum Research Center in Boston, and expanding cloud access through Amazon AWS and Microsoft all signaled growing institutional confidence.[2] IonQ completed the quantum sector's first $1 billion transaction with its acquisition of Oxford Ionics, further consolidating its position through the acquisitions of ID Quantique and Qubitekk. The company also announced an agreement to acquire SkyWater Technology, the leading quantum chip foundry, to create the largest quantum merchant supplier in the United States. D-Wave began delivering commercially deployed systems for logistics. The publicly traded U.S. quantum companies — IonQ, D-Wave, and Rigetti — now carry market capitalizations in aggregate exceeding $35 billion, though investors should note these valuations reflect forward expectations rather than current revenues.[3]

Microsoft unveiled Majorana 1, the world's first quantum processor built on topological qubits, designed to scale toward one million qubits on a single chip. In a parallel effort, Microsoft partnered with Atom Computing — a QCC portfolio company* — to deliver error-corrected systems supporting approximately 50 logical qubits, marking one of the first commercial deployments of error-corrected quantum hardware.[4] Atom Computing's neutral-atom architecture has proven particularly well-suited for this milestone, given its natural capacity for high-fidelity qubit control and scalability without the thermal constraints that challenge superconducting systems.

Google's Willow chip demonstrated that error rates improve exponentially as the qubit lattice scales — a 30-year theoretical goal now realized in hardware — and in early 2026 demonstrated verifiable quantum advantage demonstrated significant performance advantages on targeted algorithms.[5] D-Wave announced scalable on-chip cryogenic control for gate-model qubits, overcoming a long-standing engineering obstacle to commercial viability. The U.S. Department of Energy's national quantum research centers also published a joint breakthrough toward scalable quantum architectures in February 2026, reflecting the breadth of parallel progress now occurring across the ecosystem.[6]

A meaningful commercial signal is now evident. IonQ reported full-year 2025 revenue of $130 million—a 202% increase over the prior year and the first time a public quantum company has exceeded $100 million in annual GAAP revenue. The company's 2026 guidance of $225–$245 million (midpoint $235 million) reflects continued momentum, supported by a $370 million remaining performance obligation and $3.3 billion in cash and investments as of year-end 2025. JPMorgan Chase researchers demonstrated a quantum streaming algorithm achieving exponential advantage in real-time data processing, one of the clearest early indicators of quantum utility in financial services. These early revenue and application milestones suggest the sector is graduating from pure research investment toward a phase where commercial traction can be tracked and measured.[7]

QCC holds a position in Atom Computing. This constitutes a conflict of interest and should be considered when evaluating references to this company throughout this document.

https://www.tomshardware.com/tech-industry/quantum-computing/the-future-of-quantum-computing-the-tech-companies-and-roadmaps-that-map-out-a-coherent-quantum-reality
https://thequantuminsider.com/2025/06/07/quantum-industry-sees-big-bets-and-bigger-deals-in-early-2025/
https://quantumcomputingreport.com/ionq-to-acquire-oxford-ionics-for-a-1-075-billion-valuation/
https://www.datacenterdynamics.com/en/news/quantum-computing-earnings-q4-and-fy25-ionq-d-wave-rigetti-results/
https://azure.microsoft.com/en-us/blog/quantum/2025/02/19/microsoft-unveils-majorana-1
https://hpcwire.com/2025/01/20/atom-computing-microsoft-roll-out-on-premise-system-supporting-50-logical-qubits/
https://blog.google/technology/research/google-willow-quantum-chip/ https://www.programming-helper.com/tech/google-quantum-advantage-willow-chip-breakthrough-2026
https://www.fastcompany.com/91469364/d-wave-quantum-computing-first-major-breakthrough-of-2026-scalable-technology
https://news.fnal.gov/2026/02/doe-national-quantum-research-centers-reach-milestone-breakthrough-towards-building-scalable-quantum-computers/
https://www.datacenterdynamics.com/en/news/quantum-computing-earnings-q4-and-fy25-ionq-d-wave-rigetti-results/
https://247wallst.com/investing/2026/02/23/ionq-d-wave-fall-more-than-5-last-week-while-rigetti-leads-quantum-stocks/

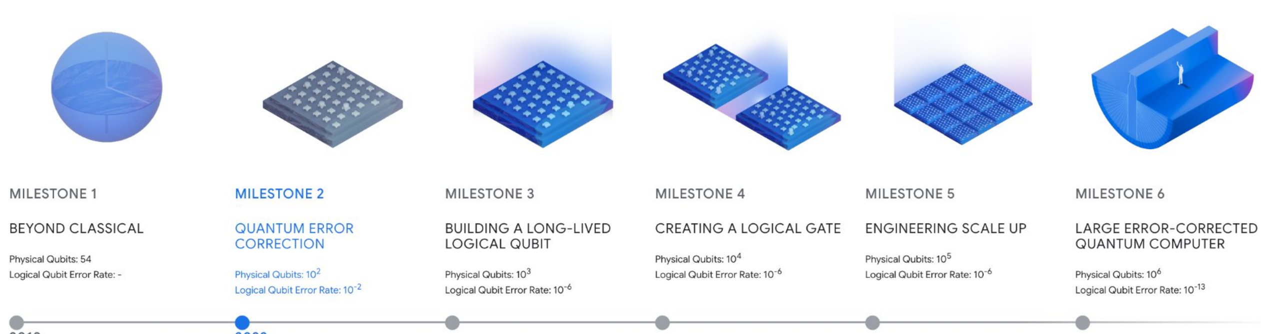
IBM Roadmap

IBM is focused on practical applications, with its updated roadmap (November 2025) targeting quantum advantage by end of 2026 and fault-tolerant computing by 2029. The company introduced the Nighthawk 120-qubit processor and the Loon experimental error-correction chip in late 2025. In March 2026, IBM unveiled the industry's first quantum-centric supercomputing reference architecture, **integrating QPUs alongside GPUs and CPUs** in a unified computational framework. This blueprint positions quantum processors as co-equal components within high-performance computing (HPC) workflows rather than standalone experimental systems, marking a significant step toward enterprise integration. The 2026 roadmap milestone centers on Kookaburra, a 1,386-qubit multi-chip processor designed as the first QEC-enabled module.[1]

Google Roadmap

Google has completed Milestone 2 of its roadmap toward a fully fault-tolerant machine. The construction of a truly useful quantum computer requires error-corrected qubits, known as a logical qubit. In 2023, the team achieved the first demonstration of a logical qubit prototype, showing that it's possible to reduce errors by increasing the number of qubits in a scheme known as quantum error correction.

Through this work, the team was able to bring quantum error-correction beyond the theoretical to the practical, unlocking a clear path to large-scale useful quantum computers. With a logical qubit prototype, we expect to unlock beyond classical NISQ (Noisy Intermediate State Quantum) applications.[2]



[1] https://www.ibm.com/quantum/blog/ibm-quantum-roadmap-2025
[2] https://quantumai.google/roadmap

Quantinuum, formed from the merger of Honeywell Quantum Solutions and Cambridge Quantum Computing, continues to advance both quantum hardware and software. In December 2024, the company entangled 50 logical qubits with fidelity exceeding 98%, establishing a benchmark for error-corrected systems. It has also partnered with Infineon Technologies to develop next-generation ion trap architectures targeting applications in chemistry, materials science, and artificial intelligence.

The company has demonstrated increasing commercial and institutional momentum. Quantinuum completed a $300 million funding round at an approximate $5 billion valuation in 2024, led by JPMorgan Chase, which has also been an early enterprise partner in applying quantum computing to financial use cases. JPMorgan participated again in subsequent financing as the company's valuation increased to approximately $10 billion, signaling continued conviction from a leading global financial institution.

More recently, Quantinuum has expanded its global footprint, including new R&D and operational initiatives in Asia, alongside continued development of enterprise-facing systems and software platforms. The company has also initiated steps toward a potential public listing, with plans to confidentially submit a draft registration statement for an initial public offering. While timing remains subject to market conditions, this represents a meaningful signal of maturation within the quantum computing sector.

Quantinuum continues to develop applications across cryptography, chemistry, and optimization, positioning itself as a full-stack platform progressing toward fault-tolerant quantum systems capable of addressing complex, large-scale computational challenges.

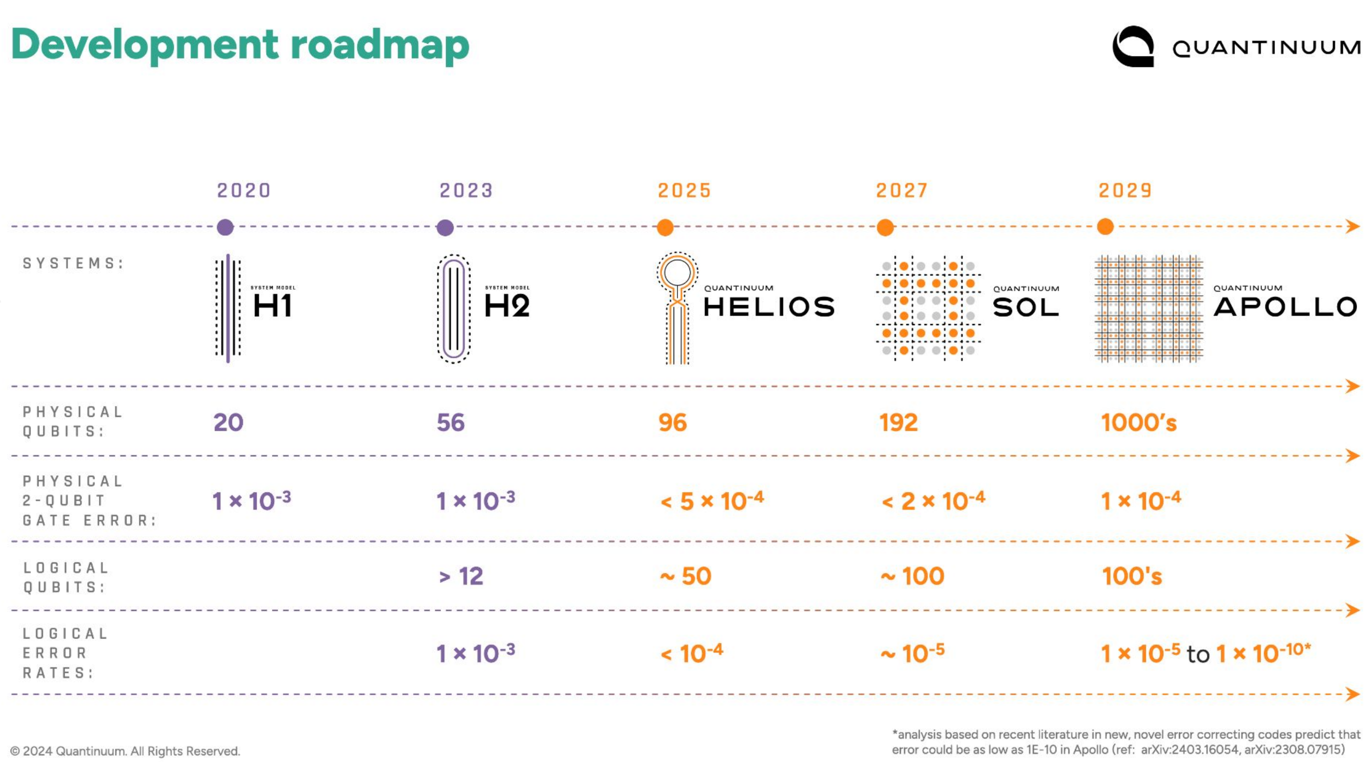


Image Source:
https://www.quantinuum.com/blog/quantinuum-accelerates-the-path-to-universal-fault-tolerant-quantum-computing-supports-microsofts-ai-and-quantum-powered-compute-platform-and-the-path-to-a-quantum-supercomputer

These collective advancements by Microsoft, IBM, Google, IonQ, Quantinuum, D-Wave and others are instrumental in overcoming the challenges of qubit stability, error correction, and scalability. Their efforts are essential in moving toward a future where quantum computers can solve problems that are currently intractable for classical systems, opening new possibilities across various industries.

Quantinuum and IonQ, among others, have advanced algorithm development to improve computational efficiency in drug discovery[5] and financial modeling[6] applications. Their work in error correction and algorithm optimization addresses key challenges in quantum computing, making quantum algorithms more practical and robust for real-world applications.

Open-source platforms like IBM's Qiskit,[7] Quantinuum's TKET,[8] Google's Cirq,[9] and Microsoft's Q#,[10] continue to lower barriers to quantum software development by providing accessible tools and frameworks for researchers and developers worldwide. These platforms foster a collaborative environment that accelerates innovation and application development, allowing users to design, simulate, and execute quantum algorithms on actual quantum hardware or simulators.

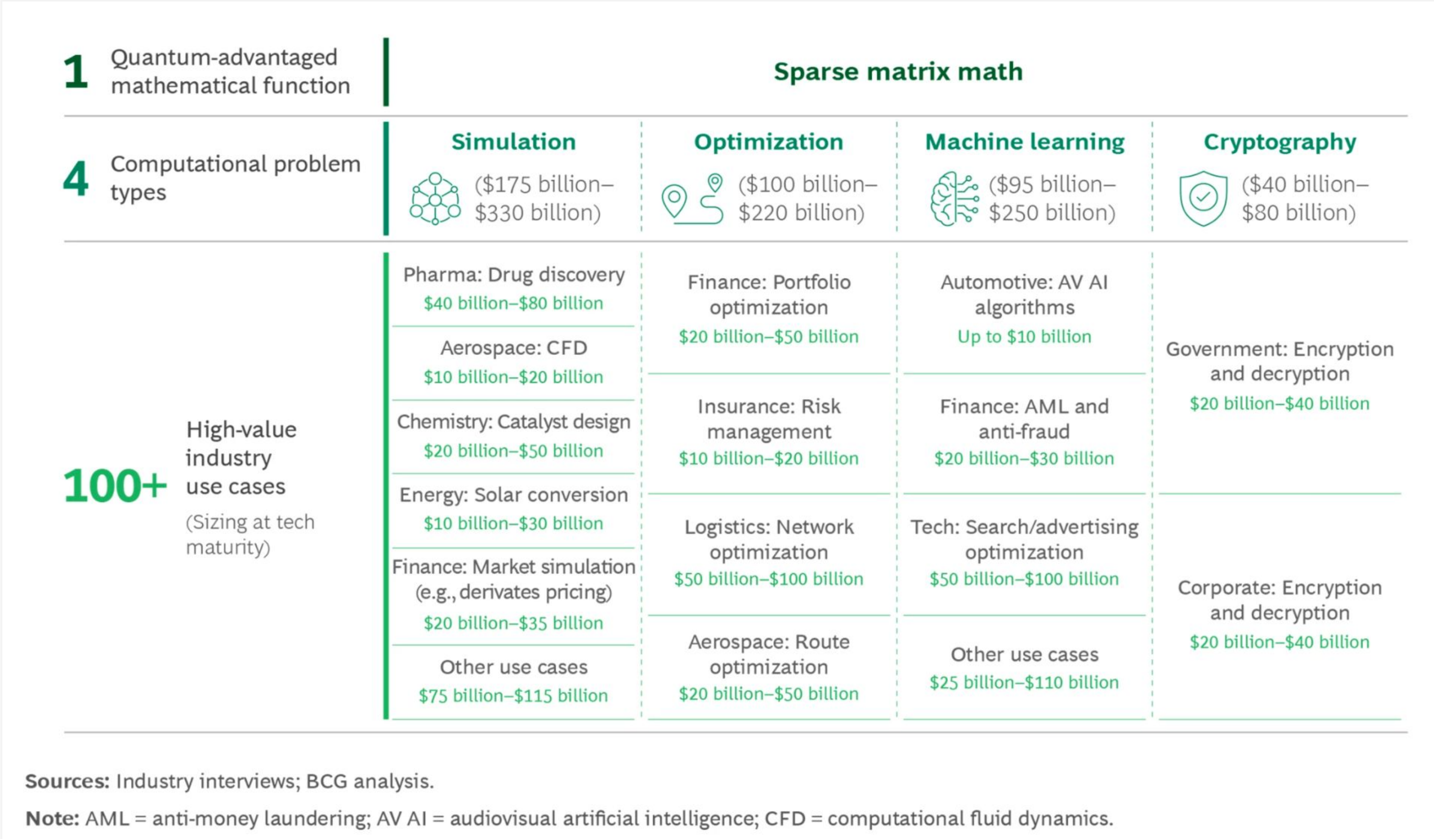
The quantum computing ecosystem is also witnessing a significant influx of startups and new entrants aiming to push the boundaries of quantum software and applications. These emerging companies are focusing on niche areas, such as quantum cryptography, optimization algorithms, quantum machine learning, and industry-specific quantum solutions. Their innovative approaches and agility contribute to the overall momentum in the field, driving competition and fostering breakthroughs that could lead to practical and scalable quantum computing solutions sooner than anticipated.

B. Recent Advancements in quantum computing software

The development of quantum algorithms and software is advancing rapidly with significant contributions from academia, industry leaders, and dedicated research institutions. These advancements aim to harness the unique properties of quantum mechanics to solve complex problems more efficiently than classical algorithms.

In recent years, there has been a surge in the creation of quantum algorithms designed for practical applications across various fields. For instance, algorithms for quantum chemistry simulations are enabling more accurate modeling of molecular structures, which is crucial for drug discovery and materials science. In finance, quantum algorithms are being developed to optimize portfolios, manage risk, and detect fraud more effectively than traditional methods. Quantum machine learning is another burgeoning area, promising enhancements in data analysis and pattern recognition tasks that could revolutionize artificial intelligence.

[5] https://azure.microsoft.com/en-us/blog/quantum/2024/09/10/microsoft-and-quantinuum-create-12-logical-qubits-and-demonstrate-a-hybrid-end-to-end-chemistry-simulation/
[6] https://www.jpmorgan.com/technology/news/jpmorganchase-research-collaboration-shows-quantum-algorithm-speedup
[7] https://www.ibm.com/quantum/qiskit
[8] https://tket.quantinuum.com
[9] https://quantumai.google/cirq
[10] https://learn.microsoft.com/en-us/azure/quantum/qsharp-overview



Qualitative estimate of expected value unlocked by the application of quantum computing by 2030

Image Source:
https://www.bcg.com/publications/2024/long-term-forecast-for-quantum-computing-still-looks-bright

Collectively, these developments highlight a vibrant and rapidly evolving quantum software landscape, where collaborative efforts across sectors are accelerating the transition from theoretical research to practical, real-world quantum applications.

C. Recent Public & Private Funding Trends

A critical accelerant behind recent progress has been the substantial capital commitment from both public and private sectors. The quantum computing industry has witnessed exponential growth in funding over the past decade.

Pre-2015: Investments were primarily government-funded research projects with limited private sector involvement.[11]

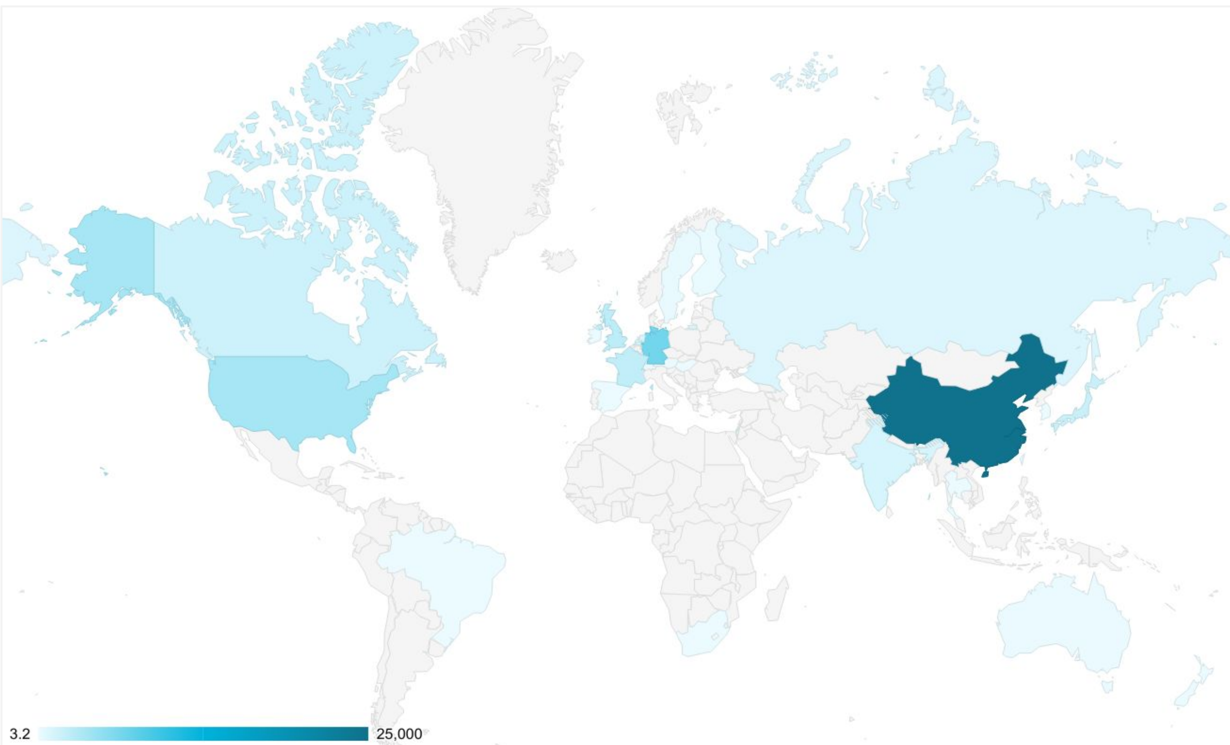
2015-2020: Increased awareness of quantum's potential led to a surge in VC funding, with annual private investments growing by over 30% year-on-year.[12]

Post-2021: A maturation of technologies and closer-to-market applications have attracted large-scale investments, including public listings and substantial government grants.[13]

[11] https://www.mckinsey.com/~/media/mckinsey/featured%20insights/the%20rise%20of%20quantum%20computing/quantum%20technology%20monitor/2021/mckinsey-quantum-technology-monitor-202109.pdf
[12] https://thequantuminsider.com/wp-content/uploads/2023/02/Quantum-Technology-Investor-Update_vFF.pdf
[13] https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/steady-progress-in-approaching-the-quantum-advantage

The European Union's Quantum Flagship, a €1 billion, 10-year initiative launched in 2018, continues to drive quantum innovation, with over €400 million allocated in its second phase under Horizon Europe, targeting hybrid quantum-classical systems and a European Quantum Internet by 2030. Germany has invested approximately €2 billion through 2024, with an additional €1 billion committed toward a universal quantum computer by 2026, focusing on superconducting and ion-trap systems. France's €1.8 billion quantum strategy includes the PROQCIMA program, targeting 128 logical qubits by 2030 and 2,048 by 2035. The Netherlands' €615 million Quantum Delta NL program continues to build a national ecosystem. Denmark has expanded its quantum ambitions through both its national strategy and participation in broader European and NATO-aligned funding initiatives, including the NATO Innovation Fund. The UK has also increased its commitment, announcing an additional £2 billion investment to accelerate quantum research and commercialization.

China has emerged as a significant player in the global quantum technology race, with an estimated $25 billion allocated toward its strategy to become a global leader in quantum technologies by 2030.



Global investment in quantum technology by governments in $B

NATO prioritizes "quantum-readiness" as part of its Emerging and Disruptive Technologies (EDTs) strategy, which includes quantum computing, sensing, and cryptography. These efforts are coordinated through initiatives like the NIF and the Defence Innovation Accelerator for the North Atlantic (DIANA). The NATO Innovation Fund (NIF) was established as the world's first multi-sovereign venture capital fund. Backed by 24 NATO Allies, the NIF has created a fund of funds, investing over €1 billion in emerging technologies, including quantum computing, artificial intelligence, biotechnology, and more.[2]

This fund supports both direct investments in startups and investments in other venture capital funds focused on deep tech. By targeting dual-use technologies, the NIF aims to strengthen NATO's defense, security, and resilience capabilities, while also fostering innovation in regions that have faced barriers to accessing capital. This initiative ensures that NATO member nations can stay at the forefront of technological advancements that are critical to national security, such as quantum-enabled technologies.

Image Source: https://www.forbes.com/sites/gilpress/2023/01/31/new-funding-for-quantum-computing-accelerates-worldwide

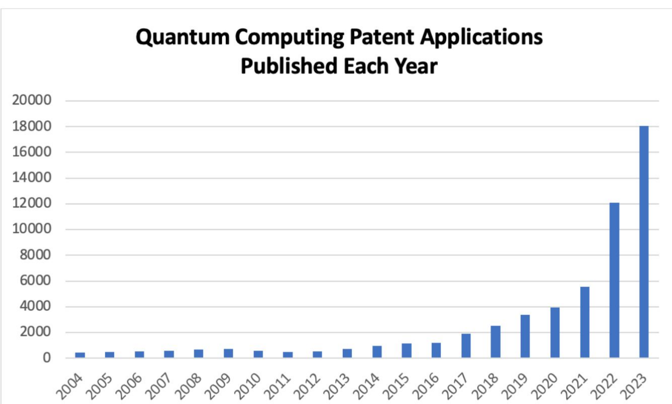
[1]https://qt.eu/

[2]https://www.nif.fund/news/nato-innovation-fund-announces-first-investment-in-a-diana-cohort-company-to-boost-quantum-sensing/

We anticipate the continuation and expansion of national quantum initiatives, with more countries introducing dedicated quantum strategies. As the technology advances toward commercialization, we expect sustained venture capital interest, the formation of strategic corporate partnerships, and an increase in potential mergers and acquisitions.

Market Characteristics and Investment Drivers:
Quantum computing is evolving from theoretical research into practical implementation, positioning it as an attractive investment opportunity for early adopters with long-term horizons.[14] Quantum technology is considered critical for national security and economic competitiveness, driving substantial government funding and supportive policies[15]. Its potential to revolutionize industries such as pharmaceuticals, finance, and logistics broadens market appeal and opens up diverse investment opportunities.

Research Institutions:
Prominent institutions like MIT, Caltech, and the University of Oxford are making significant contributions to quantum computing research.[16] Additionally, other universities and national scientific organizations are increasing funding for their quantum programs and research initiatives.



Source: IPWatchdog.
https://ipwatchdog.com/2024/02/13/patent-landscape-quantum-computing-survey-patenting-activities-different-physical-realization-methods/id=173303/

Government Initiatives:
Governments around the world recognize the strategic importance of quantum computing and are investing heavily to maintain a competitive edge.

In the United States, the National Quantum Initiative (NQI) Act, enacted in 2018, authorized a federal investment of over $1.2 billion over five years to accelerate quantum research and development (R&D)[17]. The NQI Reauthorization Act, introduced in December 2024, proposes $2.7 billion over five years to shift focus to practical applications, funding new NIST centers, NSF multidisciplinary hubs, and NASA quantum initiatives.[18]

Colorado's Elevate Quantum received over $127 million in federal and state funding to establish a major quantum tech hub, projected to attract $2 billion in private investments and create 10,000 jobs by 2030[19]. The hub focuses on advancing quantum research and building world-class facilities.

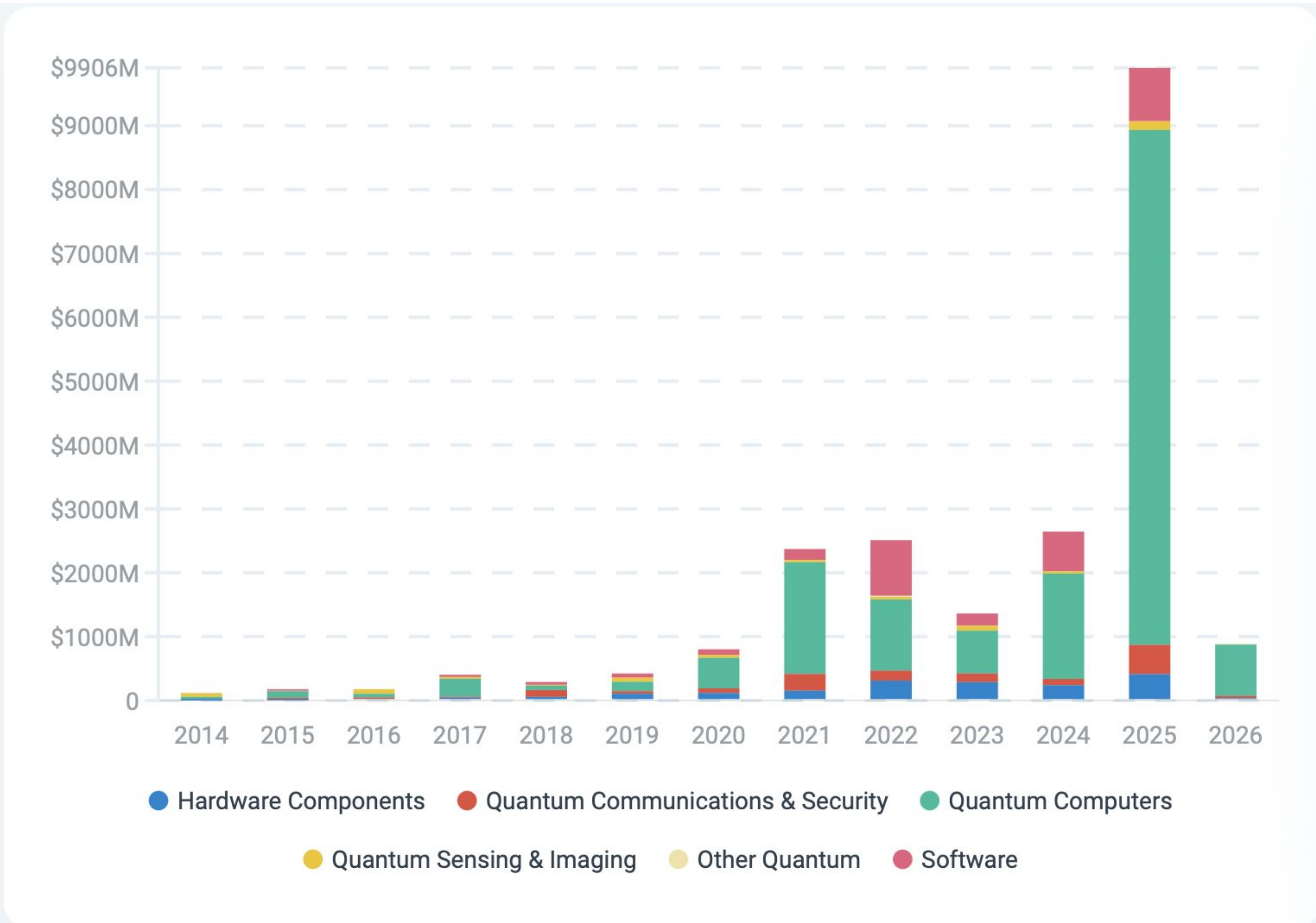
Illinois, through the Chicago Quantum Exchange (CQE) and DOE Quantum Centers like Q-NEXT and SQMS, is a national leader in quantum research.[20] These initiatives are developing quantum communication networks and superconducting quantum computers, backed by significant federal funding.

The UK invested £1 billion over ten years in its National Quantum Technologies Programme to solidify its position as a leader in quantum technologies.[21]

[14] https://www.mckinsey.com/featured-insights/the-rise-of-quantum-computing
[15] https://www.bcg.com/publications/2024/long-term-forecast-for-quantum-computing-still-looks-bright
[16] https://thequantuminsider.com/2024/05/21/20-top-universities-for-quantum-computing-research/
[17] https://www.bcg.com/publications/2021/building-quantum-advantage
[18] https://www.quantum.gov/nqiac-report-on-renewing-the-national-quantum-initiative/ and https://www.durbin.senate.gov/newsroom/press-releases/durbin-joins-introduction-of-national-quantum-initiative-reauthorization-act
[19] https://www.elevatequantum.org/elevate-quantum-awarded-127-million-to-secure-us-leadership-in-quantum-technology/
[20] https://chicagoquantum.org
[21] https://sciencebusiness.net/news/r-d-funding/quantum-computing/uk-quantum-industry-wants-clarity-over-funding-plans

Private Sector Investments
Technology giants are developing their quantum technologies as well as funding academic research and collaborating with startups to accelerate innovation. Several major technology companies are investing heavily in quantum computing, each contributing to the field's rapid advancement, including IBM, Google, Microsoft, Quantinuum (majority owned by Honeywell), Rigetti Computing, IonQ and D-Wave.

Venture Investments
Investment firms are increasingly recognizing the long-term potential of quantum computing and are including it in their portfolios, including Bessemer Venture Partners, BlackRock, JPMorgan, Andreessen Horowitz and Sequoia Capital.



Source: The Quantum Insider - March 2026

The current quantum landscape is vibrant and dynamic, with groundbreaking advancements steadily moving the field toward practical, scalable quantum computing. Despite this progress, quantum computing remains underweighted in many institutional venture portfolios relative to artificial intelligence. For investors with longer time horizons and tolerance for technical risk, this relative under-allocation may present a differentiated entry point into a maturing but still early-stage technology cycle.

Pre-2024 Data: https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/quantum-computing-funding-remains-strong-but-talent-gap-raises-concern
2024 Data: https://news.crunchbase.com/venture/quantum-computing-funding-record-high-ai-quantinuum/#:~:text=Quantum%20computing%20startups%20have%20already,$963%20million%20in%2077%20deals

D. Recent Trends in the quantum computing Job Market

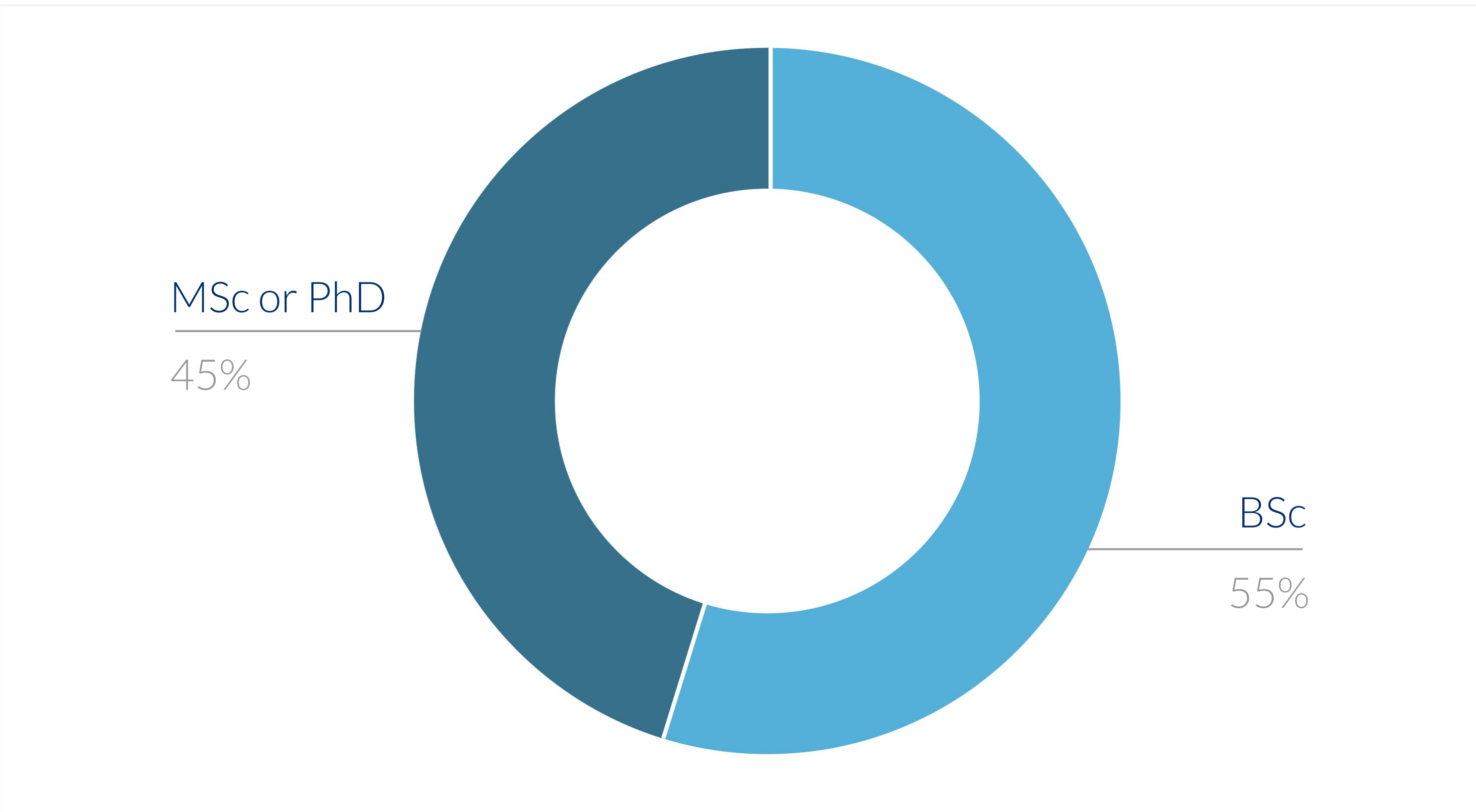
The quantum computing industry has shown remarkable growth and signs of maturation in the past years. Recent trends in the job market evidence this expansion. Increasing investments in quantum technology have catalyzed the development of a more robust and diverse workforce, which reflects the industry's progress toward quantum technology becoming a critical component of the global tech landscape.

Talent Pool Expansion

The quantum computing talent pool is expanding rapidly, a clear indicator of the industry's growth. The number of individuals graduating with quantum technology-related degrees has grown steadily, supported by a notable increase in universities offering quantum-specific programs. This growing educational infrastructure underscores the industry's commitment to developing a skilled workforce capable of driving quantum innovations forward. However, despite the influx of new talent, aligning these graduates with the specialized demands of the industry remains a challenge, highlighting the need for continued focus on skill development and industry-specific training.

Demand for Intermediate-Level Skills

As quantum technology edges closer to commercial viability, there is an increasing demand for professionals with bachelor's degrees. This trend reflects the industry's shift from purely research-focused roles to more applied positions in sectors such as finance, healthcare, and manufacturing. These industries are beginning to leverage quantum technologies, driving demand for talent that can bridge the gap between theoretical knowledge and practical application without necessarily requiring advanced degrees.



Degree requirements for quantum tech jobs

Image Source: https://chicagoquantum.org/news/fast-growing-quantum-tech-industry-has-well-paid-jobs-and-most-dont-require-graduate-degree

E. Geographic and Sectoral Distribution

The quantum computing job market is not only expanding in size but also in geographic and sectoral diversity. North America continues to lead in quantum computing, buoyed by early adoption and substantial investments. Europe and Asia are catching up rapidly, with Europe focusing on innovation clusters and Asia Pacific seeing growing demand in healthcare and finance sectors. This geographic diversification illustrates the global momentum behind quantum technology and the industry's potential to impact various sectors on a worldwide scale.

In summary, the quantum computing industry is maturing, with the job market reflecting this growth through an expanding talent pool, a shift toward more applied roles, and a broader geographic and sectoral presence. The industry's future will depend on its ability to continue advancing the technology while effectively integrating new talent into its evolving ecosystem.

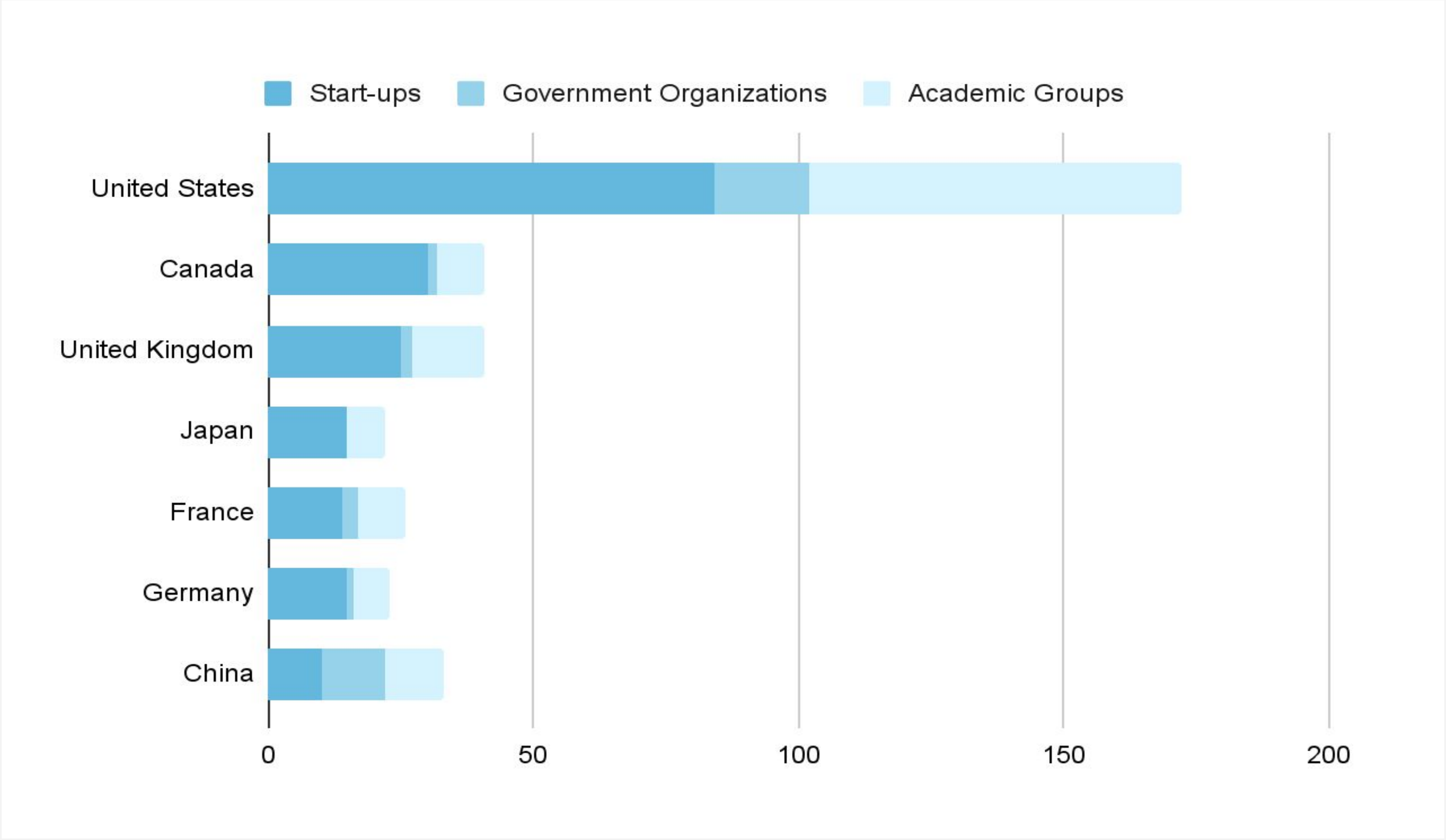


Image Source:
https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/quantum%20technology%20sees%20record%20investments%20progress%20on%20talent%20gap/quantum-technology-monitor-april-2023.pdf

III. Market Potential and Opportunities

Quantum computing has the potential to meaningfully reshape how certain classes of complex problems are approached across multiple industries. The market for quantum computing is expected to grow exponentially in the coming years, driven by advancements in technology and increasing investments from both the public and private sectors. This section explores the vast market potential of quantum computing and the specific opportunities it presents.

A. Industry Applications and Sectors Poised for Disruption

Pharmaceuticals and Healthcare:
In the realm of pharmaceuticals and healthcare, quantum computing holds the potential to significantly accelerate drug discovery and development. By simulating molecular structures and interactions with unprecedented scale and accuracy, researchers can gain insights previously unattainable. IBM and Google, among others, have established partnerships with pharmaceutical firms to explore these capabilities. For instance, optimizing the design of new drugs could become more efficient, potentially reducing the time and cost associated with bringing new treatments to market.

Financial Services: The financial industry stands to benefit immensely from quantum computing, particularly in areas like risk management, portfolio optimization, and fraud detection. Quantum algorithms process vast amounts of data much faster than classical computers, enabling more accurate predictions and better decision-making. Banks such as JPMorgan are investing in this technology to gain a competitive edge in financial modeling and cryptography.

Cybersecurity:
Quantum computing is set to transform the cybersecurity landscape by introducing both challenges and advancements. On one hand, its ability to solve complex mathematical problems threatens existing encryption methods, potentially rendering them obsolete. On the other hand, quantum technologies such as Quantum Key Distribution (QKD) and post-quantum cryptography offer new and more secure methods for protecting sensitive data. These innovations are crucial for safeguarding information against future quantum threats and ensuring the resilience of digital security systems in a post-quantum world.

Materials Science:
Quantum computing is revolutionizing materials science across various industries, including aerospace, automotive, and electronics. Companies like Airbus and BMW are using quantum simulations to develop stronger, lighter materials for aircraft and optimize battery materials for electric vehicles, enhancing energy efficiency and durability, and exploring hydrogen fuel technologies, leveraging quantum computers to design better catalysts for hydrogen production, storage, and fuel cells. In electronics, quantum simulations are advancing OLED technology by optimizing organic compounds for more efficient light emission and longer lifespan, building on research like Harvard and Google's quantum simulations of molecules such as lithium hydride and hydrogenases.

Artificial Intelligence and Machine Learning:
Quantum computing can enhance artificial intelligence (AI) and machine learning (ML) by providing more powerful computational resources. Quantum algorithms can process and analyze large datasets more efficiently, leading to more accurate models and faster training times. The convergence of quantum computing with AI and machine learning may drive advancements in automation, predictive analytics, and decision support—though the timeline and magnitude of these gains remain subject to ongoing technical progress.

Disruptive applications across major sectors

Chemicals	Pharma	Finance	Aerospace	Automotive	Climate	Materials	ICT
Molecular modelling of chemical process (for example, nitrogenase) using quantum simulations	Simulation of complex organic molecules	Solve hard combinatorial optimization problems	Real-time optimization of commercial aircraft speed and fuel consumption	Live traffic-routing system, accurate to the millisec-ond	More accurate climate models that better mimic real-world conditions	Materials' property and behavior predictions with quantum-mechanical simulations	Optimization of machine learning algorithms through quantum-enhanced deep learning
Impact: low-cost and low-energy industrial production	**Impact: accelerated drug development and approval through expanded use of simulation**	**Impact: improved efficiency in portfolio optimization and risk management**	**Impact: step-change in the industry's sustainability performance**	**Impact: more efficient traffic flow**	**Impact: revolution in carbon capture technology**	**Impact: development of novel materials (for example, energy-efficient "exciton condensate")**	**Impact: expanded applicability of neural networks**

Source: Kearney analysis

Image Source: https://www.kearney.com/industry/technology/article/-/insights/quantum-computing-why-you-should-care

B. Case Studies of Successful quantum computing Applications

Advanced Chemistry Simulations with Microsoft and Quantinuum:
Microsoft and Quantinuum have successfully developed 12 **logical qubits** and demonstrated a hybrid end-to-end chemistry simulation, marking a significant advancement in quantum computing applications. By integrating Microsoft's Quantum Development Kit with Quantinuum's high-fidelity trapped-ion quantum processors, they accurately simulated complex chemical reactions with chemical accuracy (within 1 kcal/mol) and achieved a 50% reduction in computation time compared to classical simulations.

The simulation of a complex organic molecule exhibited a 99.8% correlation with traditional high-precision methods, validating the effectiveness of their hybrid quantum-classical framework. This milestone showcases the practical potential of quantum computing in fields like drug discovery and materials science. Looking ahead, Microsoft and Quantinuum plan to scale their systems to 50 logical qubits, further enhancing their ability to perform more intricate and large-scale simulations. This collaboration sets a new benchmark for quantum chemistry simulations and paves the way for broader industrial and scientific applications of quantum technology.

IBM

Drug Discovery with IBM:
IBM partnered with pharmaceutical companies like Boehringer Ingelheim to apply quantum computing in drug discovery, aiming to simulate molecular interactions more efficiently than traditional methods. Using quantum processors with up to 16 qubits, they accurately simulated small molecules such as lithium hydride (LiH) and beryllium hydride (BeH_2), achieving chemical accuracy within 1 kcal/mol. This work indicates a promising future where quantum computing could significantly accelerate drug discovery processes.

JP Morgan

Financial Modeling with JPMorgan:
J.P. Morgan Chase has been actively integrating quantum computing into its risk analysis and financial modeling processes. By developing quantum algorithms for Monte Carlo simulations—a technique widely used in finance for risk assessment and option pricing—they have demonstrated potential quadratic speed-ups over classical algorithms. Utilizing quantum processors, they successfully simulated option pricing models and calculated risk metrics such as Value-at-Risk (VaR) and Conditional Value-at-Risk (CVaR).

Quantum Xchange

Cybersecurity Solutions by Quantum Xchange:
Quantum Xchange has developed advanced **Quantum Key Distribution (QKD)** solutions to enhance cybersecurity by providing quantum-resistant key exchange. Their QKD systems utilize the principles of quantum mechanics to securely transmit encryption keys, ensuring that any interception or tampering attempts are immediately detected. This makes QKD significantly more secure than traditional key exchange methods, which are vulnerable to potential attacks from future quantum computers. Quantum Xchange's solutions are currently being tested and implemented by various organizations across sectors such as finance, government, and healthcare to protect sensitive data from emerging quantum threats. By enabling secure and tamper-evident key distribution, Quantum Xchange demonstrates the immediate and practical applications of quantum computing in strengthening cybersecurity defenses against next-generation cyber threats.

C. Key Takeaways and Emerging Opportunities

~$130M

IonQ revenue milestone

2025

Quantum computing has moved beyond purely theoretical exploration and is approaching an inflection point in its commercialization across multiple industries.

Accelerated Hardware and Software Developments
Quantum hardware is advancing rapidly, with improvements in qubit stability, error correction, and scalability. Leading industry participants are progressing toward fault tolerance, a critical milestone for unlocking practical applications. At the same time, quantum software development is accelerating, with open-source platforms and development frameworks lowering barriers to entry and enabling more practical use cases in areas such as pharmaceuticals and financial modeling.[1]

Expanding Quantum Ecosystem
The quantum ecosystem continues to expand, supported by a growing number of startups and increased investment in quantum education and workforce development. The sector is also beginning to demonstrate early commercial traction, with leading companies surpassing key revenue milestones and increasing engagement with enterprise customers. This convergence of capital, talent, and early adoption is shifting the industry from research-led progress toward real-world deployment.[2]

Strategic Public and Private Sector Investments
Governments and major corporations are committing significant capital to quantum technologies. More than 30 governments have collectively pledged over $40 billion in public funding, while private investment from technology companies and venture capital firms continues to accelerate. These investments are supporting both foundational research and the commercialization of emerging quantum applications.[3]

Impact on the Startup Ecosystem
As the technology matures, the startup landscape is evolving from broad experimentation toward more focused execution. Startups are increasingly targeting industry-specific applications across areas such as drug discovery, optimization, cybersecurity, and enabling infrastructure. Recent investment trends reflect a shift toward fewer, larger, and more selective funding rounds, with capital concentrating around companies demonstrating credible paths to commercialization. In 2025, quantum startups attracted significant funding, including over $1 billion deployed in early-stage activity, signaling continued investor confidence despite a more disciplined capital environment.[4]

In conclusion, quantum computing is transitioning into a maturing technology supported by a more selective and increasingly capitalized ecosystem. For investors with long-term horizons, the current environment presents an opportunity to participate in a market gaining institutional validation, commercial focus, and strategic importance across multiple industries.

[1] https://www.ibm.com/quantum/qiskit
https://quantumai.google/cirq
[2] https://investors.ionq.com/news/news-details/2026/IonQ-Announces-Fourth-Quarter-and-Full-Year-2025-Financial-Results/default.aspx
[3] https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/the-year-of-quantum-from-concept-to-reality-in-2025
[4] https://thequantuminsider.com/2025/04/25/quantum-startups-secure-1-billion-in-q1-as-commercial-race-accelerates/

IV. Investment Rationale for Family Offices

Quantum technology represents a differentiated asset class for family offices seeking diversification into long-duration, innovation-driven investments. This section outlines the strategic rationale for capital allocation at this stage.

A. Unique Advantages of Family Office Investments

Near- to Medium-Term Dynamics

Quantum technology is increasingly exhibiting characteristics of an emerging asset class, with early-stage value creation driven by consolidation, talent acquisition, and intellectual property accumulation. In the near term, strategic acquisitions are expected to play a central role, as large technology companies and well-capitalized platforms seek to secure scarce technical talent and proprietary capabilities. Recent transactions across the sector, including acquisitions of quantum sensing and hardware companies, reflect a broader trend toward vertical integration and platform consolidation. For investors, this phase may present opportunities for potential earlier liquidity events relative to traditional deep tech timelines.

Long-Term Value Creation

Over longer time horizons, value creation is expected to be driven by the maturation of quantum systems and the scaling of commercially viable applications. Family offices are structurally well-positioned to participate in this phase, given their ability to deploy patient capital without the constraints of shorter fund cycles. As quantum technologies progress from experimental systems to production-level infrastructure, the potential for outsized returns increases, particularly for early investors in foundational platforms and enabling technologies.

Strategic Flexibility

Family offices also benefit from the flexibility to allocate across multiple layers of the quantum ecosystem, including direct investments in operating companies, specialized venture funds, and adjacent infrastructure opportunities. This flexibility supports a diversified approach to portfolio construction, allowing investors to balance near-term liquidity opportunities with longer-duration exposure to the underlying technology's full development cycle.

These dynamics reflect current market observations and forward-looking expectations, which are subject to uncertainty and may not be realized.

B. Long-Term Growth Potential and Risk Management

~32-48%
CAGR

Growth Potential:
Published market forecasts for quantum computing vary widely, with near-term CAGR estimates generally ranging from approximately 32% to 48%, depending on methodology and scope. JPMorgan Asset Management estimates a 41.8% CAGR through 2030, implying a global quantum computing market of approximately $20 billion by that date. While these projections should be viewed with appropriate caution, continued advances in hardware, software, and commercial adoption support the view that the market may expand meaningfully over time. For investors, early exposure may provide participation in a sector that is still developing but increasingly supported by institutional capital and industry demand.

Risk Management:
While quantum computing is still an emerging field, family offices can manage risks through a diversified investment approach. By spreading investments across multiple quantum startups, sectors, and regions, family offices can mitigate the impact of any single venture's failure. Partnering with investment managers possessing deep domain expertise in quantum technologies can provide specialized due diligence and sector knowledge, further strengthening risk management.

C. Strategic Alignment with Technological and Market Trends

Alignment with Technological Trends:
Quantum computing is at the forefront of technological innovation, with applications spanning across numerous industries including pharmaceuticals, financial services, cybersecurity, and materials science. By investing in quantum computing, family offices can align their portfolios with cutting-edge technologies that are set to redefine these sectors. This alignment ensures that family offices are well-positioned to capitalize on the transformative impact of quantum computing.

Market Opportunities:
The increasing recognition of quantum computing's potential is driving substantial investments from both private and public sectors. This influx of capital is accelerating the development and commercialization of quantum technologies, creating lucrative investment opportunities. Family offices that invest now can benefit from this momentum and participate in the growth of a market that is expected to revolutionize various industries.

In summary, investing in quantum technology offers family offices an opportunity to diversify their portfolios, achieve attractive risk-adjusted return potential, and maintain exposure to a strategically important area of innovation. The long-term growth potential, coupled with strategic advantages and risk management considerations, supports capital allocation at the current stage of market development.

32% CAGR:https://www.marketsandmarkets.com/Market-Reports/quantum-computing-market-144888301.html
48% CAGR:https://www.bccresearch.com/market-research/information-technology/quantum-computing-technologies-and-global-markets.html

V. Conclusion

Quantum technology is moving from research-driven progress toward early commercial relevance across multiple industries. Continued advances in hardware, software, and enabling infrastructure, together with growing public- and private-sector investment, are making the sector increasingly relevant for long-term investors, including family offices.

Timing and Market Positioning:
The current environment presents a developing but increasingly investable opportunity for allocating capital to quantum technology. Continued advancements in hardware and software, alongside expanding government and private sector support, are accelerating progress toward early commercial applications. While still emerging, the sector is beginning to demonstrate practical relevance across areas such as pharmaceuticals, financial services, cybersecurity, materials science, and artificial intelligence.

Role of Family Offices:
Family offices may be well-positioned to participate in this market given their ability to deploy flexible, long-duration capital. This structure enables participation across multiple phases of the technology's development, from early-stage innovation to later-stage commercialization. A disciplined approach to portfolio construction and manager selection can help balance the risks associated with emerging technologies while maintaining exposure to a category with increasing institutional interest.

Strategic Path Forward:
Allocating to quantum technology requires a measured and informed approach, balancing technical progress with commercial readiness. Partnering with experienced managers and maintaining disciplined exposure across the ecosystem can support more effective participation as the market develops.

In conclusion, quantum technology is emerging as a distinct category within deep technology, with the potential to influence multiple industries over time. For family offices with appropriate risk tolerance and investment horizons, the current stage of development warrants consideration as part of a diversified portfolio.

VI. About QCC

Quantum Coast Capital (QCC) is an investment firm focused on quantum technology. The firm invests across the quantum ecosystem, targeting companies developing commercially relevant applications and enabling infrastructure.

About Us

QCC invests in quantum companies with strong technical underpinnings and identifiable paths to commercialization. Our investment approach emphasizes disciplined capital allocation, rigorous technical diligence, and diversified exposure across infrastructure, software, and application layers of the ecosystem.

Beyond investing, QCC remains actively engaged across the broader quantum landscape through relationships with industry participants, research institutions, and policymakers. This engagement provides differentiated visibility into emerging trends, talent development, and early-stage company formation, helping inform investment decisions.

The team brings experience across technology, investing, and industry engagement, supporting the evaluation of complex opportunities and capital deployment across the sector's continued development.

Matt Cimaglia
Founder &
Managing Partner

Hillary Matchett
Chief Investment Officer
& General Partner

Our Senior Advisors

Dan Hart
Space, Defense and Technology Leader.
Former CEO, Virgin Orbit

Ronald Walsworth, PhD
World-leading quantum professor and
Founder of Quantum Tech Center

VII. Appendices

Technological Milestones:

1981	Richard Feynman introduces the idea of quantum simulation and quantum computers in his lecture, "Simulating Physics with Computers". "Nature isn't classical, dammit, and if you want to make a simulation of nature, you'd better make it quantum mechanical"
1985	David Deutsch formulated the idea of a universal quantum computer. He theorized that a Quantum Computer could simulate any physical process, providing immense computational power beyond classical limits.
1994	Peter Shor developed a quantum algorithm for factoring large numbers exponentially faster than the best-known classical algorithms, demonstrating practical applications of quantum computing.
2001	IBM built the first quantum computer to successfully implement Shor's algorithm.
2019	Google claimed quantum supremacy by performing a specific computation faster than the world's most powerful supercomputers.
2021	IBM launched its Eagle processor, boasting 127 qubits, making it the most powerful quantum processor at the time. This breakthrough paved the way for more scalable quantum systems, moving closer to solving real-world problems with quantum technology.
2022	Quantinuum made history by launching Quantum Origin, the world's first quantum-enhanced cryptographic key generation service. This marked the beginning of real-world applications for quantum computing in cybersecurity, leveraging quantum principles to improve encryption. IBM made another leap in quantum hardware by introducing Osprey, a processor with 433 qubits. This advancement highlights the rapid growth of quantum computing capabilities, bringing us closer to fault-tolerant, large-scale quantum computers.
2023	Significant progress has been made in quantum error correction techniques, essential for maintaining the stability of quantum systems over time. These breakthroughs, achieved by companies like Quantinuum and Google, are critical for scaling quantum computers and making them more reliable for commercial use.
2024	Microsoft and Quantinuum successfully created 12 logical qubits and demonstrated an end-to-end hybrid quantum chemistry simulation. Atom Computing demonstrated a 24-qubit calculation with Microsoft. Google announced the Willow chip in December, with full results published in early 2025.
2025	Google released the Willow chip demonstrating that error rates decrease exponentially as the qubit lattice scales. IBM introduced the Nighthawk 120-qubit processor and Loon experimental chip. IonQ achieved world-record 99.99% two-qubit gate fidelity and became the first public quantum company to surpass $100 million in annual revenue. This further supports the plausibility of "Q-Day" within a decade.
2026	IonQ reported continued commercial and technical progress, including expanded enterprise deployments and increased utilization of its trapped-ion systems. The company has focused on improving performance while strengthening its position through cloud integrations and strategic acquisitions. These developments reinforce the growing feasibility of scalable, application-driven quantum systems within the next decade.

Additional Resources and Reading Materials

Books:

- “Quantum Computing: A Gentle Introduction” by Eleanor G. Rieffel and Wolfgang H. Polak
- “Quantum Computing for Computer Scientists” by Noson S. Yanofsky and Mirco A. Mannucci
- “Quantum Computing: An Applied Approach” by Jack D. Hidary

Websites and Articles:

- The Quantum Insider
- IonQ
- IBM Quantum
- Google AI Quantum
- Microsoft Quantum
- Rigetti Computing
- Quantum Xchange
- Quantinuum

Industry Reports:

- PitchBook: “VCs make record bets on quantum computing”
- Venture Capital Journal: “Investors bet on computing’s quantum leap”
- The Quantum Insider: “State of Quantum 2024”

Research Papers:

- “Quantum Computation and Quantum Information” by Michael A. Nielsen and Isaac L. Chuang
- “Quantum Error Correction” by Daniel Gottesman
- “Shor’s Factoring Algorithm” by Peter W. Shor

QCC - Riders – Disclosures

This document is being distributed by Quantum Coast Capital Management LLC ("QCC"). Unless otherwise noted, references to "we," "us," "our," and similar expressions are to QCC, which includes its funds and special purpose vehicles.

This material is provided for informational purposes only and nothing herein constitutes investment, legal, accounting or tax advice. This material is general in nature and is not directed to any category of investors and should not be regarded as individualized, a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. Investment decisions and the appropriateness of this material should be made based on an investor's individual objectives and circumstances and in consultation with his or her advisors. Third-party economic or market estimates discussed herein may or may not be realized and no opinion or representation is being given regarding such estimates. Information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. All information is current as of the date of this material and is subject to change without notice. QCC, its employees and advisory accounts may hold positions of any companies discussed. Any views or opinions expressed may not reflect those of QCC as a whole. QCC products and services may not be available in all jurisdictions or to all client types. References to third-party sites are for informational purposes only and do not imply any endorsement, approval, investigation, verification or monitoring by QCC of any content or information contained within or accessible from such sites.

The views expressed herein constitute our judgment based on current market conditions and are subject to change without notice. This has not been prepared with any particular investor in mind, and it may not be suitable for all investors. Investors should speak to their financial representatives before engaging in any investment product or strategy. This material should not be regarded as research. Outlooks and past performance are not reliable indicators of future results.

Quantum technology investments are alternative assets that involve higher risks than traditional investments and are suitable only for sophisticated investors. Alternative asset investments have higher fees than traditional investments and may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise, and investors may get back less than they invested.

This document includes forward-looking statements that represent our opinions, expectations, beliefs, intentions, estimates, or strategies regarding the future, which may not be realized. These statements may be identified by the use of words like "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "will," "should," "seek," and similar expressions. The forward-looking statements reflect our views and assumptions with respect to future events as of the date of this document and are subject to risks and uncertainties. Actual and future results and trends could differ materially from those described by such statements due to various factors, including those beyond our ability to control or predict. Given these uncertainties, you should not place undue reliance on the forward-looking statements. We do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Any discussion in this document of past or proposed investment opportunities should not be relied upon as any indication of future deal flow.

Any views, strategies, or products discussed in this material may not be appropriate for all individuals and are subject to risks. Investors may get back less than they invested, and past performance is not a reliable indicator of future results. Asset allocation/diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision. You are urged to consider carefully whether the services, products, asset classes or strategies discussed are suitable to your needs. You must also consider the objectives, risks, charges, and expenses associated with an investment service, product, or strategy prior to making an investment decision. Recipients of this document should neither treat nor rely on the contents of this document as advice relating to legal, taxation, or investment matters and are advised to consult their own professional advisers. This document and its contents are confidential to the person to whom it is provided and should not be copied or distributed in whole or in part or disclosed by such persons to any other person without our prior written consent.

No representation or warranty should be made with regard to any computations, graphs, tables, diagrams, or commentary in this material, which are provided for illustration/reference purposes only. The views, opinions, estimates, and strategies expressed in this material constitute our judgment based on current market conditions and are subject to change without notice. QCC assumes no duty to update any information in this material in the event that such information changes. Views, opinions, estimates, and strategies expressed herein may differ from those expressed by other areas of QCC, views expressed for other purposes or in other contexts, and this material should not be regarded as a research report. Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events. There is no guarantee QCC will be able to execute its investment strategy or make the type of investments presented herein. QCC may change its investment strategy and focus at any point without notice to any prospective or existing investors. Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. You should consult your own tax, legal, and accounting advisors before engaging in any financial transactions.

Any specific investments or case studies identified herein were selected for inclusion in this presentation on the basis of being representative of investments or commitments to invest that we believe are comparable to investments that QCC may seek to make. They do not represent all investments made, sold, or recommended that would be comparable to the investment criteria of QCC and further represent only a small percentage of investments recommended by QCC. We have selected certain investments and case studies presented herein because they are located in QCC target geographic area or investment area, as relevant, and the sectors represented are likely target sectors for the Fund. These examples were also selected to show the nature of the investment process within the applicable industries. It should not be assumed that investments identified were or will be profitable or that the decisions that QCC makes in the future will be profitable.